

[012] Due to the very great differences in weight between an empty and a loaded vehicle, specially in the case of industrial vehicles, it will be difficult to find a coordination adequate for all vehicle conditions. In case of a heavy vehicle it can be the case that the clutch transmits enough torque only at very high rotational speeds in order sufficiently to accelerate the vehicle and thus great differences of rotational speeds appear on the clutch whereby a great friction work and consequently high wear are to be expected. An engine control in the form of withdrawing the injection amount can, according to the case, reduce the differential rotational speeds, but then the slipping time increases which results in poor acceleration behavior on account of weak transmissible torque and in great friction work. Therefore, in a specially advantageous development, the clutch has with its elements causing the torque transmission kinematics which can be controlled according to the vehicle weight or tractional resistance. The kinematics preferably comprises at least one ~~changeable~~ adjustable lever element, the ~~changeable lever ratios~~ adjustable leverage of which serve to control the torque transmission capacity of the clutch. The ~~lever ratios~~ leverage of [on] the lever elements, by displacement of the ~~reversal set points of~~ [[on]] the levers, can be advantageously changed electromotively, electromagnetically, hydraulically or pneumatically. In a specially advantageous embodiment, the vehicle clutch has a compensation of wear on the torque transmitting capacity for which purpose can be specially provided the changeable lever elements. The electronic control device of the vehicle clutch is advantageously integrated in a control device of the transmission or of the whole vehicle. Such a vehicle clutch can be particularly used between a prime mover and an automated vehicle transmission.

[024] At speeds of the vehicle that become lower, the clutch actuated by centrifugal force again opens, for example, when required by the traffic the vehicle has to hold or even stop. On the other hand, no clutch actuation takes place any more during the remaining shifting operations of the transmission, since said shifting operations are automatically carried out at the actual synchronization point of the associated vehicle gear wheels. The individual shifting operations are here released by the transmission control device 16 which for the purpose receives a signal corresponding to the speed of the vehicle from a rotational speed sensor 36 that detects the rotational speed of the transmission output shaft 12. Besides, coordinated with the selector lever 14, a position sensor 38 can be provided which communicates to the transmission control device 16 a signal about the speed range adjusted with the selector lever 14. One other signal line connects the transmission control device 16 with the accelerator pedal 34 of the vehicle. The transmission control device 16 can also receive other signals required for control of the transmission from an engine control ~~device~~ device 40 connected therewith to form one homogeneous control ← device which controls, for example, the ignition and fuel supply to the vehicle engine 2. This engine control device 40 or the transmission control device 16 receives from a rotational speed sensor 44 further measuring signals about the rotational speed of the crank shaft, the same as from a pressure sensor 46 about the power-dependent vacuum in the suction pipe 48. Other measure sensors can be a position sensor 50 detector of the position of the throttle valve, the same as a temperature sensor 52 detector of the engine temperature. The rotational speed of the input shaft 10 of the transmission 4 is detected by a rotational speed sensor 54 and transmitted to the transmission control device 16.

[025] In a specially advantageous development, the clutch 6 has with its elements causing the torque transmission kinematics which can be controlled according to the vehicle weight or tractional resistance. The kinematics preferably comprises at least one adjustable lever element 23, the adjustable leverage of which serve to control the torque transmission capacity of the clutch 6. The leverage of the lever elements 23, by displacement of the set points of the levers, can be advantageously changed electromotively, electromagnetically, hydraulically or pneumatically. In a specially advantageous embodiment, the vehicle clutch 6 has a compensation of wear on the torque transmitting capacity for which purpose can be specially provided the changeable lever elements 23. The electronic control device 40 of the vehicle clutch 6 is advantageously integrated in a control device of the transmission or of the whole vehicle. Such a vehicle clutch 6 can be particularly used between the prime mover 2 and the automated vehicle transmission 4.